

AMENDMENTS TO THE CLAIMS

26. (Currently amended): A method of detecting in a sample the presence or absence of neoplastic cells having an increased copy number of nucleic acid sequences at chromosome region 20q13.2, the method comprising:

contacting a nucleic acid sample from a human patient with a probe which specifically hybridizes to a target polynucleotide sequence under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes, the target polynucleotide sequence comprising a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, and SEQ ID NO:13 wherein the probe is contacted with the sample under conditions in which the probe hybridizes selectively with the target polynucleotide sequence to form a stable hybridization complex; and

detecting the formation of a hybridization complex to determine ~~the relative a~~ copy number of a nucleic acid in chromosomal region 20q13.2, thereby identifying the presence or absence of neoplastic cells having an increased copy number of nucleic acid sequences at chromosomal region 20q13.2.

27. (Original): The method of claim 26, wherein the nucleic acid sample is from a patient with breast cancer.

28. (Currently amended): The method of claim 26, wherein the nucleic acid sample is a metaphase spread or ~~a~~an interphase nucleus.

29. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:1.

30. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:2.

31. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:3.

32. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:4.

33. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:5.

34. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:6.

35. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:7.

36. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:8.

37. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:9.

38. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:10.

39. (Original): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:12.

40. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ ID NO:45.

48. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:1 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

49. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:2 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

50. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:3 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

51. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:4 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

52. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:5 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

53. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:6 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

54. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:7 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

55. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:8 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

56. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:9 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

57. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:10 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

58. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:11 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

59. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:12 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

60. (Previously presented): The method of claim 26, wherein the probe comprises a polynucleotide sequence that hybridizes to SEQ ID NO:45 under stringent conditions that include washing with 0.2x SSC at 65°C for 15 minutes.

61. (Previously presented): The method of claim 26, wherein the probe is labeled.

62. (Previously presented): The method of claim 61, wherein the label is a fluorescent label.

63. (Previously presented): The method of claim 26, wherein the nucleic acid sample is a chromosome